MARANDA HIGH SCHOOL

Kenya Certificate Of Secondary Education

THE 2024 MOCK EXAMINATION

231/3 BIOLOGY PAPER 3

June, 2024 TIME: $1^{3}/_{4}$ Hrs

Name: ……..…… Admission No:……

Stream: …….. **Signature**: …….....

231/3 - BIOLOGY
Monday, 10th June, 2024
Morning
7.00 am-10.40am

Instructions

(a) Write your ***name, admission number, date, stream and signature*** *in the spaces provided above.*

(b) All answers must be written in the spaces provided in the booklet.

(c) This paper consists of 8 printed pages with 3 questions. Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing

(d) Candidate should answer the questions in ***English***

FOR EXAMINERS'USE ONLY

QUESTION	MAXIMUM SCORE	CANDIDATE'S SCORE
1	13	
2	15	
3	12	
Total	40	

1.You are provided with specimen **Q**. Make a transverse section through **Q** to obtain two halves:

(a) (i) Carefully observe and make a drawing of one of the cut surface.

Label any **two** parts on the diagram. (3marks)

(b) squeeze out juice from the two halves into a beaker . Sieve the juice to obtain solution **Q1**.Divide the solution into two equal amounts and transfer them into two separate test tubes and label them as solution **Q2** and Q3.Using the reagents provided ,carry out the food test to determine the foods available in solution **Q2**.fill in the table below. (6marks)

FOOD TESTED	PROCEDURE	OBSERVATION	CONCLUSION
Protein			
Non-Reducing sugar			

(c)(i) You are provided with a visking tubing 8cm long. Open and tie one end tightly with the thread. Half fill it with the solution **Q3** and tie the other end tightly with a piece of thread to avoid leakage. Rinse the visking tubing. Measure 10ml of distilled water and put in a boiling tube and immerse the visking tubing completely in it and leave it to stand for 15minutes.Using Benedict's solution only, carry out food test on the content of the boiling tube. (3 marks)

FOOD TESTED	PROCEDURE	OBSERVATION	CONCLUSION

(ii) Account for the observation made above. (1mark)

_____

_____

_____

2. (a) Below is a photograph of a germinating seedling. Examine it.

(i) identify the type of germination shown by the seedling above. (1mark)

_____

(ii) As germination progresses the part labelled **H** straightens. Explain how this occurs. (3marks)

_____

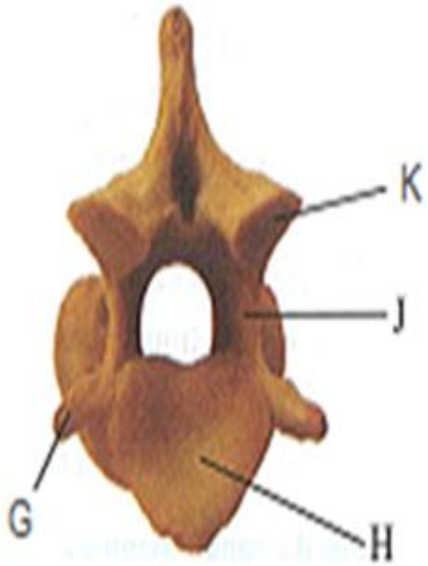
_____

_____

_____

(b). The photographs below are of the same mammalian vertebra showing two views of the same bone. Examine them carefully.

View 1



View 2

(i) Identify the vertebra (1mark)

_____

(ii) Name the region of the body from which the bone was obtained (1mark)

_____

(iii) Name part **X** (1mark)

_____

(iv) State the function of part **X** (1mark)

_____

(v) Name the bone that articulate with the vertebra shown in the photograph above at:

Proximal end (1 mark)

_____

Distal end (1 mark)

_____

(c)State the functional difference between a tendon and a ligament (1 mark)

_____

_____

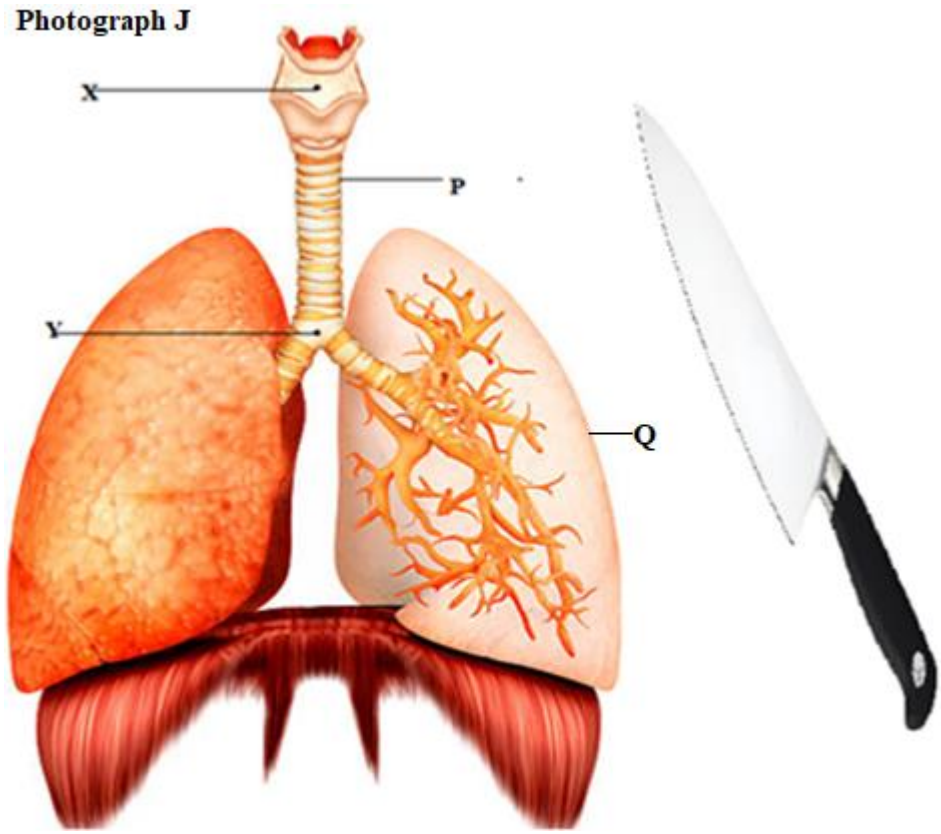
(d) Below are photographs of specimens obtained from plants. Examine the photographs.

In the table below name the mode of dispersal and one feature that adapt each specimen to that mode of dispersal. (4marks)

SPECIMEN	MODE OF DISPERSAL	ADAPTIVE FEATURE
A		
B		

3. Examine photographs **J** and **K** and answer the question that follows.

Photograph J



Photograph K

(a) Identify the organ Q in photograph J and the organ in photograph K and state the class of organisms from which each were obtained. (4mrks)

Organ	Identity	Organism class
Q	_____	_____
K	_____	_____

(b) State the common functions performed by the organs shown in the photographs. (1mrk)

_____

_____

(c) List any **two** adaptations that are common to organ **Q** and the organ in photograph **K**. (2marks)

_____

_____

_____

_____

(d) (i) If the actual length of the knife shown in the photograph **J** is 28cm.Calculate the magnification of the photograph. (2marks)

_____

_____

_____

_____

(ii) Calculate the actual distance between line **X** and **Y** on photograph **J.** (2marks)

_____

_____

_____

_____

(e) Name the part labeled **P** in photograph **J**. (1mark)

_____